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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,081	12/10/2003	Simon Sabato	03311.0016U2	7960

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EXAMINER
VIANA DI PRISCO, GERMAN

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/734,081	SABATO ET AL.
	Examiner	Art Unit	
	GERMAN VIANA DI PRISCO	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _17 March 2008_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-15_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.
      2.   Ascertaining the differences between the prior art and the claims at issue.
      3.   Resolving the level of ordinary skill in the pertinent art.
      4.   Considering objective evidence present in the application indicating
          obviousness or nonobviousness.

3.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

4.   Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Alferness et al (United Sates Patent No.: 5,555,396) as applied to claim 1 above,

and further in view of Yin ("Yin'458", United States Patent No.: 5,926,458).

Consider claim 1, Alferness et al discloses a method for managing a queue of

packets using queue sets data structures, the method comprising:

transforming a plurality of consecutive packets (multiple message segments

represented by queue entries 60, 62 and 64) into a queue set data structure based on a

target queue set data structure size (the size of the queue set data structure depends

on the number of queue entries), the plurality of consecutive packets being associated

with the queue (consecutive queue entries 60, 62 and 64 belong to queue B) (figures 1

and 3 and column 3, line 63 – column 4, line 65) ; and

performing a queuing operation on the queue set data structure, the queuing operation

treating the queue set data structure as a single entity, such that the queuing operation

is performed on each of the plurality of consecutive packets in the queue set data

structure (one queue can be enqueued and dequeued as a single entity) (figure 3,

abstract, and column 3, line 63 – column 5, line 9).

However Alferness does not specifically disclose combining packets of different

sizes.

In the same filed of endeavor, Yin'458 discloses that the data packets stored in

the queues may have different lengths (Col. 1, lines 66-67 and Col. 2, lines 65-66).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to have packets of different lengths as disclosed by Yin in

the system of Alferness to efficiently service multiple queues.

Consider claim 2 and as applied to claim 1, Alferness et al further discloses determining a size of each of the plurality of consecutive packets; allocating the plurality of consecutive packets to the queue set data structure based on a target queue set data structure size according to the consecutive packet sizes, the target queue set data structure size being approximate to a largest supported packet length of the queue (the number of queue entries depends on the size of the message (data) in the queue and the queue set data structure size will depend on the number on entries as defined by the count field (figure 3, abstract and column 4 line 66-column 5, line 9).

Consider claim 6 and as applied to claim 1, Alferness et al further discloses enqueueing and dequeueing (column 4, lines 48-50).

5.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alferness et al ("Alferness", United Sates Patent No.: 5,555,396) as applied to claim 1 above, in view of Yin ("Yin'458", United States Patent No.: 5,926,458), and of Yin et al ("Yin'012", United States Patent No.: US 6,810,012 B1) and further in view of Giroux et al ("Giroux", United States Patent Application Publication No.: US 2002/0044529 A1).

Consider claim 3 and as applied to claim 1 above, Alferness as modified by Yin'458 does not explicitly disclose the claimed invention.

In the same field of endeavor Yin'012 clearly discloses determining a queue service interval for performing queuing operations on queue sets based upon a desired data rate (column 3 lines 13-15); wherein performing the queuing operation on the queue set data structure related to the queue further comprises: performing a first

queuing operation on a first queue ser related to the queue, delaying a period of time

equivalent to the queue service interval, and performing a subsequent queuing

operation on a second queue set data structure related to the queue(column 3 lines 44-

46).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to combine the teachings of Yin et al in the system of

Alferness as modified by Yin'458 in order to ideally service each queue set.

Nonetheless the combination of Alferness, Yin'458 and Yin'012 et al fails to

teach that the determination of the queue service interval is based upon a target queue

set data structure size.

In the same field of endeavor Giroux discloses, determining the queue service

interval based upon a target queue size (paragraph [0033]).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to determine the queue service interval based upon a

target queue size as disclose by Giroux et al in the system of Alferness as modified by

Yin'458 and Yin'012in order to ensure bandwidth allocation.

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alferness

et al ("Alferness", United Sates Patent No.: 5,555,396) as applied to claim 1 above, in

view of Yin ("Yin'458", United States Patent No.: 5,926,458), and of Yin et al ("Yin'012",

United States Patent No.: US 6,810,012 B1) and further in view of Giroux et al ("Giroux",

United States Patent Application Publication No.: US 2002/0044529 A1) and further in

view of Aweya et al ("Aweya", United Sates Patent No.: 7,047,312 B1)) and of Reeser

et al ("Reeser", United Sates Patent No.: 6,789,050 B1) .

Consider claim 4 and as applied to claim 3 above, the combination of Alferness,

Yin'458, Yin'012 and Giroux et al does not specifically disclose determining an average

queue set size for the queue set over a period of time; and adjusting the queue service

interval based upon a difference between the average queue set size and the target

queue set size.

In the same field of endeavor Aweya discloses detecting congestion by taking the

difference (comparing) the average queue size with the target queue size (pre-

determined threshold) (column 5, lines 22-30).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to take the difference between the average queue set size

and the target queue set size as disclosed by Aweya et al in the system of Alferness as

modified by Yin'458 and by Yin'012 and further modified by Giroux in order to

determine congestion.

Also In the same field of endeavor Reeser discloses adjusting the queue service

interval (service time) based upon congestion (column 3 lines 1-9).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to adjust the queue service interval based on congestion

as disclosed by Reeser in the system of Alferness as modified by Yin'458 and by

Yin'012 and further modified by Giroux and Aweya in order to implement flow control

without having to discard packets.

7.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alferness

et al ("Alferness", United Sates Patent No.: 5,555,396) in view of Yin ("Yin'458", United

States Patent No.: 5,926,458) as applied to claim1 above, and further in view of Sriram

(United Sates Patent No.: 5,463,620).

        Consider claim 5 and as applied to claim 5 above, Alferness as modified by

Yin'458 does not specifically disclose that performing the queuing operation further

comprises:

shaping traffic flow of the queue set data structure at a rate for transmission of data

from the queue.

        In the same field of endeavor Sriram discloses shaping traffic flow of the queue

set at a rate for transmission of data from the queue (figure 5 and column 5, lines 51-

60).

        Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to shape traffic flow as disclosed by Sriram in the queue

set data structure of Alferness as modified by Yin'458 in order to guarantee a certain

amount of bandwidth.

8.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alferness

et al ("Alferness", United Sates Patent No.: 5,555,396), in view of Yin ("Yin'458", United

States Patent No.: 5,926,458), as applied to claim 1 above, and further in view of

Parthasarathy (United States Patent No.: US 6,826,182 B1).

Consider claim 7 and as applied to claim 1 above, Alferness as modified by

Yin'458 does not specifically teach the claimed limitations.

In the same field of endeavor Parthasarathy discloses disclose determining that

each queue of a plurality of consecutive queues is the same(identical message queues)

(column 5 line 6-12); using one representative queue to represent the plurality of

consecutive queues (in figure 3b composite queue 35 in figure 3b), a replication count

of the queue being equivalent to the number of queues in the plurality of consecutive

queues (multiple read cursor RCI-n)(figure 3b and column 5 lines14-16); and performing

a queuing operation on the representative queue, such that the queuing operation is

performed on each of the plurality of consecutive queues (column 5 lines 45-49).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to combine the teachings of Parthasarathy for replicating

queues in the system of Alferness as modified by Yin'458 in order to reduce overhead

and to make efficient use of available bandwidth between network points.

9.   Claims 8, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Yin ("Yin'458", United States Patent No.: 5,926,458) in view of Alferness et al

("Alferness", United Sates Patent No.: 5,555,396).

Consider claim 8 Yin'458 discloses a system for queue management,

comprising: a queue set data structure generator configured for transforming a plurality

of consecutive packets into a queue set data structure based on a target queue set data

structure size, the plurality of consecutive packets being associated with a queue (buffer

controller transforms incoming data packets into queues 46-52 based on the finite size

on the queues, when queues are full packets may be dropped), Wherein the plurality of

consecutive packets comprise a first packet having a first packet size and a second

packet having a second packet size (packets have different lengths, Col.1, lines 66-67),

the queue set data structure generator further configured for generating a notification

when a queue set data structure is ready for scheduling (via communication line 56,

packet scheduler is kept informed of the status of each queue which is used in

determining the scheduling) ; and a scheduler (packet scheduler 28) communicatively

coupled to the queue set data structure generator to receive the notification, the

scheduler configured for performing a queuing operation on the queue set data

structure, the queuing operation treating the queue set data structure as a single entity,

such that the queuing operation is performed on each of the plurality of consecutive

packets in the queue set data structure (figure 2 and column 4, lines 18-64).

However Yin'458 does not specifically disclose that the queuing operation treats

the queue set data structure as a single entity, such that the queuing operation is

performed on each of the plurality of consecutive packets in the queue set data

structure.

In the same field of endeavor Alferness discloses performing a queuing operation

on the queue set data structure, the queuing operation treating the queue set data structure as a single entity, such that the queuing operation is performed on each of the plurality of consecutive packets in the queue set data structure (one queue can be enqueued and dequeued as a single entity) (figure 3, abstract, and column 3, line 63 – column 5, line 9).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to perform a queuing operation as disclosed by Alferness in the system of Yin'458 with the purpose of increasing the efficiency of message transfer.

Consider claim 9 and as applied to claim 8 Alferness further discloses determining a size of each of the plurality of consecutive packets; allocating the plurality of consecutive packets to the queue set data structure based on a target queue set data structure size according to the consecutive packet sizes, the target queue set data structure size being approximate to a largest supported packet length of the queue (the number of queue entries depends on the size of the message (data) in the queue and the queue set data structure size will depend on the number on entries as defined by the count field (figure 3, abstract and column 4 line 66-column 5, line 9).

Consider claim 13 and as applied to claim 8, Alferness further discloses enqueueing and dequeueing (column 4, lines 48-50).

10.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin ("Yin'458", United States Patent No.: 5,926,458) in view of Alferness et al ("Alferness",

United Sates Patent No.: 5,555,396), and further in view of Yin et al ("Yin'012", United States Patent No.: US 6,810,012 B1) and of Giroux et al ("Giroux", United States Patent Application Publication No.: US 2002/0044529 A1).

Consider claim 10 and as applied to claim 8 above, Yin'458 as modified by Alferness and further modified by Yin'012 and Giroux et al does not specifically teach the claimed limitations.

In the same field of endeavor Yin'012 discloses determining a queue service interval for performing queuing operations on queue sets based upon a desired data rate (column 3 lines 13-15); wherein performing the queuing operation on the queue set data structure related to the queue further comprises: performing a first queuing operation on a first queue ser related to the queue, delaying a period of time equivalent to the queue service interval, and performing a subsequent queuing operation on a second queue set data structure related to the queue(column 3 lines 44-46).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Yin et al in the system of Yin'458 as modified by Alferness in order to ideally service each queue set.

Nonetheless the combination of Yin'458, Alferness and Yin'012 fails to teach that the determination of the queue service interval is based upon a target queue set data structure size.

In the same field of endeavor Giroux discloses, determining the queue service interval based upon a target queue size (paragraph [0033]).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to determine the queue service interval based upon a target queue size as disclose by Giroux in the system of Yin'458 as modified by Alferness and by Yin'012 in order to ensure bandwidth allocation.

11.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin ("Yin'458", United States Patent No.: 5,926,458) in view of Alferness et al ("Alferness", United Sates Patent No.: 5,555,396), and of Yin et al ("Yin'012", United States Patent No.: US 6,810,012 B1) and of Giroux et al ("Giroux", United States Patent Application Publication No.: US 2002/0044529 A1), and further in view of Aweya et al ("Aweya", United Sates Patent No.: 7,047,312 B1)) and of Reeser et al ("Reeser", United Sates Patent No.: 6,789,050 B1).

Consider claim 11 and as applied to claim 10 above, Yin'458 as modified by Alferness, Yin'012, and Giroux does not specifically teach the claimed limitations.

In the same field of endeavor Aweya discloses detecting congestion by taking the difference (comparing) the average queue size with the target queue size (pre-determined threshold) (column 5, lines 22-30).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to take the difference between the average queue set size and the target queue set size as disclosed by Aweya in the system of Yin'458 as modified by Alferness and by Yin'012 and further modified by Giroux et al in order to determine congestion.

Also In the same field of endeavor Reeser discloses adjusting the queue service

interval (service time) based upon congestion (column 3 lines 1-9).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to adjust the queue service interval based on congestion

as disclosed by Reeser in the system of Yin'458 as modified by Alferness and by

Yin'012 and by Giroux and further modified by Aweya et al in order to implement flow

control without having to discard packets.

12.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin

("Yin'458", United States Patent No.: 5,926,458) in view of Alferness et al ("Alferness",

United Sates Patent No.: 5,555,396) as applied to claim 8 above, and further in view of

Sriram (United Sates Patent No.: 5,463,620).

Consider claim 12 and as applied to claim 8 above, Yin'458 as modified by

Alferness does not specifically teach the claimed limitations.

In the same field of endeavor Sriram discloses shaping traffic flow of the queue

set at a rate for transmission of data from the queue (figure 5 and column 5, lines 51-

60).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to shape traffic flow as disclosed by Sriram in the system

of Yin'458 as modified by Alferness in order to guarantee a certain amount of

bandwidth.

13.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yin

("Yin'458", United States Patent No.: 5,926,458) in view of Alferness et al ("Alferness",

United Sates Patent No.: 5,555,396) as applied to claim 8 above, and further in view of

Parthasarathy (United States Patent No.: US 6,826,182 B1).

Consider claim 14 and as applied to claim 8 above, Yin'458 as modified by

Alferness does not specifically teach the claimed limitations.

In the same field of endeavor Parthasarathy discloses disclose determining that

each queue of a plurality of consecutive queues is the same(identical message queues)

column 5 line 6-12); using one representative queue to represent the plurality of

consecutive queues (in figure 3b composite queue 35 in figure 3b), a replication count

of the queue being equivalent to the number of queues in the plurality of consecutive

queues (multiple read cursor RCI-n)(figure 3b and column 5 lines14-16); and performing

a queuing operation on the representative queue, such that the queuing

operation is performed on each of the plurality of consecutive queues (column 5 lines

45-49).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to combine the teachings of Parthasarathy for replicating

queues in the system of Yin'458 as modified by Alferness in order to reduce overhead

and to make efficient use of available bandwidth between network points.

14.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Alferness et al (United Sates Patent No.: 5,555,396), and of Yin ("Yin'458", United

States Patent No.: 5,926,458), as applied to claim 1 above, and further in view of Davis

(United States Patent Application Publication No.: US 2008/0002707 A1).

 Consider claim 15, and as applied to claim 1 above, Alferness as modified by

Yin'458 does not specifically disclose the claimed limitations.

 In the same field of endeavor, Davis discloses determining a number of times the

multicast packet is to be replicated (router 10 supports multicast packets therefore it

needs to know the number of times a packets needs to be replicated);determining a first

number of copies, the first number of copies representing how many copies of the

multicast packet can be processed by a first queue ; inserting data into the queue set

data structure indicating the multicast packet is to be replicated the first number of times

in the first queue(multicast VLAN identifier (MID) and port number); determining a

remaining number of times the multicast packet is to be replicated(multicast VLAN

identifier (MID) and port number are used to obtain a replication count); and generating

a second queue set data structure for a second queue, the second queue set data

structure comprising a number of times the packet is to be replicated within the second

queue set data structure and a number of times the second queue set data structure is

to be replicated (multicast packets can be send to different VLAN ID and different port,

hence a second queue); wherein a product of the number of times the packet is to be

replicated within the second queue set data structure and the number of times the

second queue set data structure is to be replicated is not greater than the remaining

number of times the multicast packet is to be replicated (the total number of packets

replicated and sent to the different VLANs adds up to total number of packets

replicated)(paragraph [0050]).

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to incorporate the teachings of Davis in the system of

Alferness as modified by Yin'458 in order to enqueue multicast packets using memory

and processing resources efficiently.

Response to Arguments

15.   Applicant's arguments with respect to claims 1-7 have been considered but are

moot in view of the new ground(s) of rejection. With regard to claims 8-14, the

Applicant basically argues that Yin'458 does not teach packets of different sizes. The

Examiner respectfully disagrees because Yin'458 that the data packets stored in the

queues may have different lengths (see Col. 1, lines 66-67 and Col.2, lines 65-66).

Conclusion

16.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

16.   Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed

to**:

>   Commissioner for Patents
>   P.O. Box 1450
>   Alexandria, VA 22313-1450

>   **Hand-delivered responses** should be brought to

>   Customer Service Window
>   Randolph Building
>   401 Dulany Street
>   Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GERMAN VIANA DI PRISCO whose telephone number

is (571)270-1781. The examiner can normally be reached on Monday through Friday

7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

German Viana Di Prisco

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617

December 9, 2008